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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/528,538	09/14/95	KANEKO	N 35,61548

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NEW YORK NY 10112-3801

EXAMINER  
CONEU, K

ART UNIT PAPER NUMBER  
2831

DATE MAILED: 07/21/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No.

08/528,538

Applicant(s)

Norio Kaneko

Examiner

Kamand Cuneo

Group Art Unit

2831



☒ Responsive to communication(s) filed on Apr 30, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claims

☒ Claim(s) 1-3, 22, and 23 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-3, 22, and 23 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Mar 6, 1998 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Treatment of Claims Based on Language and Format*

#### *35 U.S.C. § 112, second paragraph*

1. Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- A substantial portion of claim 1 is identical to claim 23. Further, the limitations in this redundant section do not properly refer to claim 23 for antecedent basis.
- In claim 1, line 11, "consisting of the following formulas (I) to (IV) and (V)" is confusing. Please change this to "consisting of the following materials disclosed in (I) to (V)."
- In claim 3, line 3, please change "among" to "from."

### *Treatment of Claims Based on Prior Art*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 23 and 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (5,202,307).

Hayashi discloses a fine line of an oxide superconducting material with silver

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dispersed in the voids and covered with a copper sheath, reference the abstract, column 2 at lines 41-50 and column 4 at lines 11-16.

4. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Anderson et al. (5,071,826 hereafter referred to as Anderson).

Anderson discloses superconducting grains with silver melted on them to provide an inter-granular constituent, reference column 2 at lines 60-67, column 3 at lines 1-20 and column 4 at lines 27-57. Anderson disclose that the superconductor can be in the form of a wire (be a fine line), column 4 at line 50. When the silver is applied to coat the material, column 4 at line 3, the fine line of superconductor will necessarily have a coating of conductive silver as well.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, as applied to claim 23 above, and Den et al. (5,512,538).

Hayashi discloses the claimed invention except for the superconducting oxide being Ln-Sr-Cu-M-O. Den et al. (538) discloses this type of superconducting oxide, reference the abstract. It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to use the superconducting oxide of Den et al. (538) in the wire of Hayashi, because this type of superconducting oxide is one of many oxides known in the art for making superconducting wires.

This combination is hereafter referred to as the Den-Hayashi wire.

Regarding claim 22: The Den-Hayashi wire discloses the claimed invention except that the conductive material is an alloy. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make the conductive material of the Den-Hayashi wire an alloy of copper, gold or aluminum, because it is well known in the superconducting arts to make the outer sheath of these types of wires from alloys of copper, gold or aluminum.

### *Response to Arguments*

7. Applicant's arguments filed 3/6/98 have been carefully reviewed and, considering the evidence as a whole, are not persuasive.

Applicant argues that the prior art does not show a superconducting matrix with metal in the voids and that the metal phase is discontinuous where the superconducting phase is continuous. Examiner notes that the prior art indeed shows a superconducting material with melted metal in the voids as stated in the final office action of 9/2/97. The prior art does not teach that the superconducting phase is continuous and the metal phase discontinuous. But, applicant does not claim this. Applicant merely states that the oxide superconductor forms a matrix with metal dispersed in it.

In applicant's specification, there is no definition of the word "matrix." According to

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Webster's New Riverside Dictionary II, 1994, by Houghton Mifflin Co., matrix means "a situation or surrounding substance within which something originates, develops or is contained." Whether the silver of the prior art is contained in the superconductive material or the superconductive material is contained in the silver is a matter of choosing the point of reference and is totally relative. Lacking any clear description in the specification of where applicant draws the line between metal contained in the superconductive material or vice versa, examiner is driven to interpret the claims in their broadest meaning and conclude that the prior art teaches silver dispersed in the matrix of superconducting material despite the fact that the ratio of the volume of silver is more than the ratio of the volume of the superconducting material.

Applicant states in the arguments filed 3/6/98, page 3 at line 17, equates matrix with a continuous phase. The pivotal point of applicant's argument is that the superconducting material in the present invention is continuous and in the prior art is discontinuous or particulate. Examiner does not find these arguments persuasive, because neither the specification of the present invention nor examiner's dictionary set forth such definitions. Matrix does not necessarily mean continuous and this feature is not claimed. Even the particulate nature of the prior art is not precluded by the language of the claims.

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*Closing*

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Examiner Kamand Cuneo at (703) 308-1233. Examiner Cuneo's supervisor is Mrs. Kristine Kincaid whose telephone number is (703) 308-0640.



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KC  
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